

METHOD AND APPARATUS FOR LINKING CONVERTED APPLLET FILES WITHOUT RELOCATION ANNOTATIONS

ABSTRACT

A smart card which includes a non-volatile read/write memory, a processor connected to the memory, and an installer module configured to cause the processor to receive computer code having method bodies into the memory, and further configured to cause the processor to perform a method for determining the instruction boundaries of the method bodies and resolving unresolved references within the method bodies. The method includes steps for examining each instruction for a forward jump instruction and a valid ending instruction, maintaining a farthest logical return pointer corresponding to the instruction for which the farthest forward jump instruction or the farthest valid ending instruction is detected, resolving unresolved references within a method body starting with the first instruction and ending with the instruction corresponding to the farthest logical return pointer, and terminating the examination of each instruction within a method body when the instruction under examination is beyond the instruction corresponding to the farthest logical return pointer.